IN THE CLAIMS

Amend the claims as follows:

1. (original) A method for automatically adjusting a stimulation pulse energy, comprising:

performing a threshold test by generating stimulation pulses to trigger corresponding evoked responses, and sensing the evoked response to determine a capture threshold value, in order to generate a threshold statistical model; and

based on the threshold statistical model, automatically adjusting the stimulation pulse energy to a level that reduces the risk of loss of capture.

2. (original) The method as recited in Claim 1, wherein automatically adjusting the stimulation pulse energy includes setting an autocapture threshold safety margin as a function of a variability of the threshold statistical model over time.

3. (original) The method as recited in Claim 2, wherein automatically adjusting the stimulation pulse energy includes setting the autocapture threshold safety margin by adding a predetermined margin to a threshold level determined from the threshold statistical model.

4. (original) The method as recited in Claim 2, wherein generating stimulation pulses includes generating a plurality of trigger pulses at intervals that are continuously adjusted to be proportional to the variability of the threshold statistical model.

5. (original) The method as recited in Claim 2, wherein generating stimulation pulses includes generating a plurality of trigger pulses at intervals that vary with a standard deviation of the threshold level.

6. (withdrawn) The method as recited in Claim 1, wherein generating a threshold statistical model includes generating a histogram; and

further including selecting a threshold level based on the number of captures accumulated in a plurality of bins of the histogram, with each bin corresponding to a stimulating pulse energy setting.

7. (original) The method according to Claim 1, wherein generating a threshold statistical model includes calculating a safety margin (SM) based on a standard deviation (σ)of the threshold value, wherein the safety margin is expressed as follows:

$$SM = \sigma * B,$$

where B is a predefined factor; and

calculating a mean threshold value (T_{MEAN}) by averaging thresholds values over a predetermined period of time, and setting the stimulation pulse energy (PE) as follows:

$$PE = T_{MEAN} + SM.$$